

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,338	09/11/2003	Morio Nagata	2565-0274P	7095
2292 7590 12/19/2006 BIRCH STEWART KOLASCH & BIRCH PO BOX 747			EXAMINER	
			PHAM, CHRYSTINE	
FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
			2192	
•				
SHORTENED STATUTORY PE	RIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MONTHS		12/19/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)			
	10/659,338	NAGATA ET AL.			
Office Action Summary	Examiner	Art Unit			
	Chrystine Pham	2192			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	I. lely filed the mailing date of this communication. O (35 U.S.C. § 133).			
Status					
1) ☐ Responsive to communication(s) filed on 11 Section is FINAL. 2b) ☐ This action is FINAL. 2b) ☐ This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro				
Disposition of Claims					
4) Claim(s) is/are pending in the application 4a) Of the above claim(s) is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers 9) The specification is objected to by the Examine 10) The drawing(s) filed on 11 September 2003 is/a Applicant may not request that any objection to the case Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Examine 11) The oath or declaration is objected to by the Examine 11) The oath or declaration is objected to by the Examine 11)	vn from consideration. r election requirement. r. ne: a)⊠ accepted or b)□ object drawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.					
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	te			

DETAILED ACTION

This action is responsive to application 10/659338 filed on September 11, 2003. Claims 1-16 are presented for examination. Priority date September 25, 2002 has been considered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 9

Merely claimed as "A transformation program ...", it is limited to computer listings *per* se, i.e., the descriptions or expressions of the programs, and is not a physical "thing". As claimed, the "transformation program" is neither a computer component nor statutory process, as it is not "acts" being performed. Such claimed computer program does not define any structural and functional interrelationships between the program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer

program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. See MPEP 2106.01 [R-5] (I)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-16 rejected under 35 U.S.C. 102(e) as being anticipated by Dupuy et al. (US 6,523,171 B1, "Dupuy").

Claim 1

Dupuy teaches a transformation apparatus comprising:

a memory unit for storing a program for batch processing in a form of source code (see at least 160 FIG.1 & associated text);

a section judging unit for dividing the source code of the program stored in the memory unit into at least one block of process, each block of process being identified as a section, and judging a role of the section as semantic information of each section (see at least col.2:30-55); and

an extracting/transforming unit for extracting transformation information for source code transformation from the source code of the program stored in the memory unit based on the semantic information of each section judged by the section judging unit (see at least col.2:30-55), and transforming the source code of the program into source code of a transformation result program including the source code of a transformation result program for a client (see at least stub class col.4:25-52) and the source code of the transformation result program for a server (see at least skeleton classes col.4:25-52) based on the transformation information extracted (see at least 130, 180 FIG.1 & associated text; 230 FIG.2 & associated text).

Claim 2

The rejection of base claim 1 is incorporated. Dupuy further teaches wherein the extracting/transforming unit transforms the source codes of the two transformation result programs into source codes of an object-oriented program (see at least 130, 180 FIG.1 & associated text; col.2:30-55).

Claim 3

The rejection of base claim 2 is incorporated. Dupuy further teaches wherein the extracting/transforming unit creates plural templates of the object-oriented program, which correspond to plural classes having a predetermined data structure and procedure, extracts plural pieces of information including the predetermined data structure and procedure from the source codes of the two transformation result

programs, and transforms the source codes of the two transformation result programs into the source codes of plural object-oriented programs by applying each of the plural pieces of information extracted to a corresponding part of the plural templates (see at least object-oriented classes col.2:30-55).

Claim 4

Dupuy teaches a transformation apparatus comprising:

a memory unit for storing a program for batch processing in a form of source code (see at least 160 FIG.1 & associated text);

a section judging unit for dividing the source code of the program stored in the memory unit into at least one block of process, each block of process being identified as a section, and judging a role of each section as semantic information of each section (see at least 100, 110, 120 FIG.1 & associated text; col.2:35-45), and wherein the transformation apparatus creates plural templates of object-oriented programs, which correspond to plural classes, each of which having a predetermined data structure and procedure, extracts plural pieces information including the predetermined data structure and procedure from the source code of the program for batch processing stored in the memory unit based on the semantic information of each section judged by the section judging unit, and transforms the source code of the program stored in the memory unit by applying each of the plural pieces of information extracted to a corresponding part of the plural templates (see at least col.2:30-55).

Claim 5,

Claim recites limitations, which have been addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.

Claim 6

The rejection of base claim 1 is incorporated. Dupuy further teaches a syntax analyzing unit for analyzing syntax of the program stored in the memory unit (see at least syntactical analysis col.2:4-30; 105 FIG.1 & associated text), and wherein the section judging unit judges the semantic information of each section included in the program, the syntax of which is analyzed by the syntax analyzing unit (see at least col.3:10-35; 110 FIG.1 & associated text).

Claims 8-11

Claims recite limitations, which have been addressed in claim 1, therefore, are rejected for the same reasons as cited in claim 1.

Claim 12

The rejection of base claim 11 is incorporated. Dupuy further teaches wherein: the first transformation unit inputs the program source code for the off-line batch processing, naming rules of data, and coding rules of procedures and transforms the program source code into two kinds of class programs including a client side class and

a server side class for the on-line real-time processing (see at least 105, 110 FIG.1 & associated text; stub, skeleton col.4:25-52; 230 FIG.2 & associated text); and the second transformation unit inputs the two kinds of class programs and generates source program of an object-oriented program (see at least col.2:30-55).

Claim 13

The rejection of base claim 12 is incorporated. Dupuy further teaches wherein the second transformation unit transforms the client side class into three kinds of class programs including a model class, a view class, and a controller class (see at least *Interface, GUI, Event* FIG.2 & associated text) and transforms the server side class into two kinds of class programs including a session class and an entity class (see at least *skeleton, Imp* FIG.2 & associated text).

Claim 14

The rejection of base claim 12 is incorporated. Dupuy further teaches wherein the first transformation unit includes preprocessing of meaning assignment for referring to definition of data in the source code of the program, judging definition of a master file and definition of a transaction file, detecting a role of the program and roles of components of the program among a series of processes, and appending labels which show the roles of the program and the roles of the components of the program among a series of processes (see at least 105, 110 FIG.1 & associated text; col.2:30-55).

Claims 15-16

Claims recite limitations, which have been addressed in claim 1, therefore, are rejected for the same reasons as cited in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dupuy in view of Bahrs et al. (US 6,002,874).

Claim 7

The rejection of base claim 1 is incorporated. Dupuy does not expressly disclose wherein the source code is a COBOL program. However, Bahrs teaches a method of transforming procedural source code into object-oriented source code (see at least Abstract; FIG.4 & associated text) wherein the procedural source code is a COBOL program source code (see at least col.1:49-col.2:7). Dupuy and Bahrs are analogous art because they are both directed to converting procedural source code into object-oriented source code. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Bahrs into that of Dupuy for the inclusion of transforming Cobol source code into object

Application/Control Number: 10/659,338 Page 9

Art Unit: 2192

oriented source code. And the motivation for doing so would have been to improve data processing efficiencies and productivity of the code users (see at least Bahrs col.2:8-20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tuan dam Supervisory patent examiner